

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A process for separating butenes and butanes by extractive distillation using a polar extractant by

- a) extractively distilling a stream comprising butenes and butanes using a polar extractant to obtain a top fraction comprising butanes and a bottom fraction comprising butenes and the polar extractant and
- b) destillatively separating the bottom fraction from a) into a lower boiler fraction which comprises the butenes and a high boiler fraction which comprises the polar extractant,

being recycled the high boiler fraction from b) comprising the polar extractants, into the extraction stage a),

wherein, some or all of the low boiler fraction of stage b) is separated in a second separating stage c) into a butene-containing fraction and a fraction comprising the polar extractant, and the fraction comprising the polar extractant is recycled into the distillative separation of stage b).

Claim 2 (Original): The process as claimed in claim 1, wherein the distillative separation of stage b) is carried out at a pressure of from 0.5 to 5 bar.

Claim 3 (Currently Amended): The process as claimed in claim 1 or 2, wherein a portion of the low boiler fraction of stage b) is recycled into the extraction stage a).

Claim 4 (Original): The process as claimed in claim 3, wherein the recycle ratio of stage b) to stage a) is 0.01-0.5 kg/kg.

Claim 5 (Currently Amended): The process as claimed in ~~either of claims 3 or 4~~ claim 3, wherein the portion of the low boiler fraction b) recycled into stage a) is compressed to the working pressure of stage a).

Claim 6 (Currently Amended): The process as claimed in ~~any of claims 1 to 5~~ claim 1, wherein the recycle ratio of stage c) to stage b) is 0.001 – 0.1 kg/kg.

Claim 7 (Currently Amended): The process as claimed in ~~any of claims 1 to 6~~ claim 1, wherein the second separating stage c) is effected by distillation at a pressure of 1-5 bar.

Claim 8 (Currently Amended): The process as claimed in ~~any of claims 1 to 7~~ claim 1, wherein the second separating stage c) is effected by cooling the low boiler fraction from stage b) to from -10 to +55°C.

Claim 9 (Currently Amended): The process as claimed in ~~any one of claims 1 to 8~~ claim 1, wherein the polar extractant is used anhydrously or in a mixture with from 0.1 to 20% by weight of water.

Claim 10 (Currently Amended): The process as claimed in ~~any of claims 1 to 10~~ claim 1, wherein the polar extractant used is dimethylformamide, N-methylpyrrolidone, acetonitrile, furfural, N-formylmorpholine or dimethylacetamide.